

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/554,026  
Source: P9/10  
Date Processed by STIC: 11/1/05

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PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/554,026

DATE: 11/01/2005

TIME: 10:53:13

Input Set : A:\Q90951 Sequence Listing.txt

Output Set: N:\CRF4\11012005\J554026.raw

3 <110> APPLICANT: Japan Science and Technology Agency  
 W--> 4 <120> TITLE OF INVENTION: APOPTOSIS-INDUCING AGENT AND METHOD FOR INDUCING APOPTOSIS  
 W--> 5 <130> FILE REFERENCE: Q90951  
 C--> 6 <140> CURRENT APPLICATION NUMBER: US/10/554,026  
 C--> 6 <141> CURRENT FILING DATE: 2005-10-21  
 6 <150> PRIOR APPLICATION NUMBER: JP 2003-116299  
 7 <151> PRIOR FILING DATE: 2003-04-21  
 W--> 8 <160> NUMBER OF SEQ ID: 14  
 10 <170> SOFTWARE: PatentIn version 3.1  
 12 <210> SEQ ID NO: 1  
 13 <211> LENGTH: 1853  
 14 <212> TYPE: DNA  
 15 <213> ORGANISM: Homo sapiens  
 17 <220> FEATURE:  
 18 <221> NAME/KEY: CDS  
 19 <222> LOCATION: (65)..(1693)  
 21 <300> PUBLICATION INFORMATION:  
 22 <301> AUTHORS: Liu, J. et al.  
 23 <302> TITLE: Defective interplay of activators with TFIH in xeroderma  
 pigmentosum  
 24  
 25 <303> JOURNAL: Cell  
 26 <304> VOLUME: 104  
 27 <305> ISSUE: 3  
 28 <306> PAGES: 353-353  
 29 <307> DATE: 2001  
 30 <308> DATABASE ACCESSION NO: GenBank/NM\_14281  
 31 <309> DATABASE ENTRY DATE: 2001-12-26  
 32 <313> RELEVANT RESIDUES: 1 TO 1853  
 34 <400> SEQUENCE: 1  
 35 atcgcgcgag acagcggaaag gagcaagagt gggaggcgcg cgccggaggcc gcgcacggacg 60  
 37 caag atg gcg acg gcg acc ata gct ctc cag gtc aat ggc cag caa gga 109  
 38 Met Ala Thr Ala Thr Ile Ala Leu Gln Val Asn Gly Gln Gln Gly  
 39 1 5 10 15  
 41 ggg ggg tcc gag ccg gcg gcg gcg gca gtg gtg gca gca gac 157  
 42 Gly Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala Gly Asp  
 43 20 25 30  
 45 aaa tgg aaa cct cca cag ggc aca gac tcc atc aag atg gag aac ggg 205  
 46 Lys Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu Asn Gly  
 47 35 40 45  
 49 cag agc aca gcc gcc aag ctg ggg ctg cct ccc ctg acg ccc gag cag 253  
 50 Gln Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro Glu Gln  
 51 50 55 60  
 53 cag gag gcc ctt cag aag gcc aag aag tac gcc gag cag agc atc 301

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54	Gln	Glu	Ala	Leu	Gln	Lys	Ala	Lys	Tyr	Ala	Met	Glu	Gln	Ser	Ile			
55	65					70					75							
57	aag	agt	gtg	ctg	gtg	aag	cag	acc	atc	gcg	cac	cag	cag	cag	cag	349		
58	Lys	Ser	Val	Leu	Val	Lys	Gln	Thr	Ile	Ala	His	Gln	Gln	Gln	Leu			
59	80					85					90				95			
61	acc	aac	ctg	cag	atg	gct	cag	cg	cg	gct	gcc	atc	atg			397		
62	Thr	Asn	Leu	Gln	Met	Ala	Ala	Gln	Arg	Gln	Arg	Ala	Leu	Ala	Ile	Met		
63						100				105					110			
65	tgc	cgc	gtc	tac	gtg	ggc	tct	atc	tac	tat	gag	ctg	ggg	gag	gac	acc	445	
66	Cys	Arg	Val	Tyr	Val	Gly	Ser	Ile	Tyr	Tyr	Glu	Leu	Gly	Glu	Asp	Thr		
67						115				120					125			
69	atc	cgc	cag	gcc	ttt	gcc	ccc	ttt	ggc	ccc	atc	aag	agc	atc	gac	atg	493	
70	Ile	Arg	Gln	Ala	Phe	Ala	Pro	Phe	Gly	Pro	Ile	Lys	Ser	Ile	Asp	Met		
71						130				135					140			
73	tcc	tgg	gac	tcc	gtc	acc	atg	aag	cac	aag	ggc	ttt	gcc	ttc	gtg	gag	541	
74	Ser	Trp	Asp	Ser	Val	Thr	Met	Lys	His	Lys	Gly	Phe	Ala	Phe	Val	Glu		
75						145				150					155			
77	tat	gag	gtc	ccc	gaa	gct	gca	cag	ctg	gcc	ttg	gag	cag	atg	aac	tcg	589	
78	Tyr	Glu	Val	Pro	Glu	Ala	Ala	Gln	Leu	Ala	Leu	Glu	Gln	Met	Asn	Ser		
79						160				165					170		175	
81	gtg	atg	ctg	ggg	ggc	agg	aac	atc	aag	gtg	ggc	aga	ccc	agc	aac	ata	637	
82	Val	Met	Leu	Gly	Gly	Arg	Asn	Ile	Lys	Val	Gly	Arg	Pro	Ser	Asn	Ile		
83						180				185					190			
85	ggg	cag	gcc	cag	ccc	atc	ata	gac	cag	ttg	gct	gag	gag	gca	cg	gcc	685	
86	Gly	Gln	Ala	Gln	Pro	Ile	Ile	Asp	Gln	Leu	Ala	Glu	Glu	Ala	Arg	Ala		
87						195				200					205			
89	tcc	aac	cgc	atc	tac	gtg	gcc	tct	gtg	cac	cag	gac	ctc	tca	gac	gat	733	
90	Phe	Asn	Arg	Ile	Tyr	Val	Ala	Ser	Val	His	Gln	Asp	Leu	Ser	Asp	Asp		
91						210				215					220			
93	gac	atc	aag	agc	gtg	ttt	gag	ggc	ttt	ggc	aag	atc	aag	tcc	tgc	aca	781	
94	Asp	Ile	Lys	Ser	Val	Phe	Glu	Ala	Phe	Gly	Lys	Ile	Lys	Ser	Cys	Thr		
95						225				230					235			
97	ctg	gcc	cg	gac	ccc	aca	act	ggc	aag	cac	aag	ggc	tac	ggc	ttc	att	829	
98	Leu	Ala	Arg	Asp	Pro	Thr	Thr	Gly	Lys	His	Lys	Gly	Tyr	Gly	Phe	Ile		
99						240				245					250		255	
101	gag	tac	gag	aag	gcc	cag	tcg	tcc	caa	gat	gct	gtg	tct	tcc	atg	aac	877	
102	Glu	Tyr	Glu	Lys	Ala	Gln	Ser	Ser	Gln	Asp	Ala	Val	Ser	Ser	Met	Asn		
103						260				265					270			
105	ctc	ttt	gac	ctg	gg	g	c	tg	ac	tt	gg	gt	gg	a	g	ct	925	
106	Leu	Phe	Asp	Leu	Gly	Gly	Gln	Tyr	Leu	Arg	Val	Gly	Lys	Ala	Val	Thr		
107						275				280					285			
109	ccg	ccc	atg	ccc	cta	ctc	aca	cca	gcc	acg	cct	gga	ggc	ctc	cca	cct	973	
110	Pro	Pro	Met	Pro	Leu	Leu	Thr	Pro	Ala	Thr	Pro	Gly	Gly	Leu	Pro	Pro		
111						290				295					300			
113	gcc	gct	gct	gtg	gca	gct	gca	g	cc	act	gg	a	g	atc	aca	g	1021	
114	Ala	Ala	Ala	Val	Ala	Ala	Ala	Ala	Ala	Thr	Ala	Lys	Ile	Thr	Ala	Gln		
115						305				310					315			
117	gaa	gca	gtg	gcc	gga	gca	g	cg	gtg	ctg	ggt	acc	ctg	ggc	aca	cct	gga	1069
118	Glu	Ala	Val	Ala	Gly	Ala	Ala	Val	Leu	Gly	Thr	Leu	Gly	Thr	Pro	Gly		

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119	320	325	330	335														
121	ctg	gtg	tcc	cca	gca	ctg	acc	ctg	gcc	cag	ccc	ctg	ggc	act	ttg	ccc	1117	
122	Leu	Val	Ser	Pro	Ala	Leu	Thr	Leu	Ala	Gln	Pro	Leu	Gly	Thr	Leu	Pro		
123																	340	
125	cag	gct	gtc	atg	gct	gcc	cag	gca	cct	gga	gtc	atc	aca	ggt	gtg	acc	1165	
126	Gln	Ala	Val	Met	Ala	Ala	Gln	Ala	Pro	Gly	Val	Ile	Thr	Gly	Val	Thr		
127																	350	
129	cca	gcc	cgt	cct	cct	atc	ccg	gtc	acc	atc	ccc	tcg	gtg	gga	gtg	gtg	1213	
130	Pro	Ala	Arg	Pro	Pro	Ile	Pro	Val	Thr	Ile	Pro	Ser	Val	Gly	Val	Val		
131																	370	
133	aac	ccc	atc	ctg	gcc	agc	cct	cca	acg	ctg	ggt	ctc	ctg	gag	ccc	aag	1261	
134	Asn	Pro	Ile	Leu	Ala	Ser	Pro	Pro	Thr	Leu	Gly	Leu	Leu	Glu	Pro	Lys		
135																	385	
137	aag	gag	aag	gaa	gaa	gag	gag	ctg	ttt	ccc	gag	tca	gag	cg	cca	gag	1309	
138	Lys	Glu	Lys	Glu	Glu	Glu	Glu	Leu	Phe	Pro	Glu	Ser	Glu	Arg	Pro	Glu		
139																	400	
141	atg	ctg	agc	gag	cag	cac	atg	agc	atc	tcg	ggc	agt	agc	gcc	cga		1357	
142	Met	Leu	Ser	Glu	Gln	Glu	His	Met	Ser	Ile	Ser	Gly	Ser	Ser	Ala	Arg		
143																	420	
145	cac	atg	gtg	atg	cag	aag	ctg	ctc	cgc	aag	cag	gag	tct	aca	gtg	atg	1405	
146	His	Met	Val	Met	Gln	Lys	Leu	Leu	Arg	Lys	Gln	Glu	Ser	Thr	Val	Met		
147																	435	
149	gtt	ctg	cgc	aac	atg	gtg	gac	ccc	aag	gac	atc	gat	gat	gac	ctg	gaa	1453	
150	Val	Leu	Arg	Asn	Met	Val	Asp	Pro	Lys	Asp	Asp	Ile	Asp	Asp	Asp	Leu	Glu	
151																	450	
153	ggg	gag	gtg	aca	gag	gag	tgt	ggc	aag	ttc	ggg	gcc	gtg	aac	cgc	gtc	1501	
154	Gly	Glu	Val	Thr	Glu	Glu	Cys	Gly	Lys	Phe	Gly	Ala	Val	Asn	Arg	Val		
155																	465	
157	atc	atc	tac	caa	gag	aaa	caa	ggc	gag	gag	gag	gat	gca	gaa	atc	att	1549	
158	Ile	Ile	Tyr	Gln	Glu	Lys	Gln	Gly	Glu	Glu	Glu	Asp	Ala	Glu	Ile	Ile		
159																	480	
161	gtc	aag	atc	ttt	gtg	gag	ttt	tcc	ata	gcc	tct	gag	act	cat	aag	gcc	1597	
162	Val	Lys	Ile	Phe	Val	Glu	Phe	Ser	Ile	Ala	Ser	Glu	Thr	His	Lys	Ala		
163																	500	
165	atc	cag	gcc	ctc	aat	ggc	cgc	tgg	ttt	gct	ggc	cgc	aag	gtg	gtg	gct	1645	
166	Ile	Gln	Ala	Leu	Asn	Gly	Arg	Trp	Phe	Ala	Gly	Arg	Lys	Val	Val	Ala		
167																	515	
169	gaa	gtg	tac	gac	cag	cag	cgt	ttt	gat	aac	agt	gac	ctc	tct	gcg	tga	1693	
170	Glu	Val	Tyr	Asp	Gln	Glu	Arg	Phe	Asp	Asn	Ser	Asp	Leu	Ser	Ala			
171																	530	
173	cagtggcccc	tctccccc	ggg	tttgcacttg	1753													
175	acatgttgtgt	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	cccccccccc	1813
177	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	gtgcggatgc	1853
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181	<211>	LENGTH:	542															
182	<212>	TYPE:	PRT															
183	<213>	ORGANISM:	Homo sapiens															
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186	Met	Ala	Thr	Ala	Thr	Ile	Ala	Leu	Gln	Asn	Gly	Gln	Gln	Gly	Gly			

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187	1	5	10	15
188	Gly Ser Glu Pro Ala Ala Ala Ala Val Val Ala Ala Gly Asp Lys			
189	20	25	30	
190	Trp Lys Pro Pro Gln Gly Thr Asp Ser Ile Lys Met Glu Asn Gly Gln			
191	35	40	45	
192	Ser Thr Ala Ala Lys Leu Gly Leu Pro Pro Leu Thr Pro Glu Gln Gln			
193	50	55	60	
194	Glu Ala Leu Gln Lys Ala Lys Lys Tyr Ala Met Glu Gln Ser Ile Lys			
195	65	70	75	80
196	Ser Val Leu Val Lys Gln Thr Ile Ala His Gln Gln Gln Leu Thr			
197	85	90	95	
198	Asn Leu Gln Met Ala Ala Gln Arg Gln Arg Ala Leu Ala Ile Met Cys			
199	100	105	110	
200	Arg Val Tyr Val Gly Ser Ile Tyr Tyr Glu Leu Gly Glu Asp Thr Ile			
201	115	120	125	
202	Arg Gln Ala Phe Ala Pro Phe Gly Pro Ile Lys Ser Ile Asp Met Ser			
203	130	135	140	
204	Trp Asp Ser Val Thr Met Lys His Lys Gly Phe Ala Phe Val Glu Tyr			
205	145	150	155	160
206	Glu Val Pro Glu Ala Ala Gln Leu Ala Leu Glu Gln Met Asn Ser Val			
207	165	170	175	
208	Met Leu Gly Gly Arg Asn Ile Lys Val Gly Arg Pro Ser Asn Ile Gly			
209	180	185	190	
210	Gln Ala Gln Pro Ile Ile Asp Gln Leu Ala Glu Glu Ala Arg Ala Phe			
211	195	200	205	
212	Asn Arg Ile Tyr Val Ala Ser Val His Gln Asp Leu Ser Asp Asp Asp			
213	210	215	220	
214	Ile Lys Ser Val Phe Glu Ala Phe Gly Lys Ile Lys Ser Cys Thr Leu			
215	225	230	235	240
216	Ala Arg Asp Pro Thr Thr Gly Lys His Lys Gly Tyr Gly Phe Ile Glu			
217	245	250	255	
218	Tyr Glu Lys Ala Gln Ser Ser Gln Asp Ala Val Ser Ser Met Asn Leu			
219	260	265	270	
220	Phe Asp Leu Gly Gly Gln Tyr Leu Arg Val Gly Lys Ala Val Thr Pro			
221	275	280	285	
222	Pro Met Pro Leu Leu Thr Pro Ala Thr Pro Gly Gly Leu Pro Pro Ala			
223	290	295	300	
224	Ala Ala Val Ala Ala Ala Ala Thr Ala Lys Ile Thr Ala Gln Glu			
225	305	310	315	320
226	Ala Val Ala Gly Ala Ala Val Leu Gly Thr Leu Gly Thr Pro Gly Leu			
227	325	330	335	
228	Val Ser Pro Ala Leu Thr Leu Ala Gln Pro Leu Gly Thr Leu Pro Gln			
229	340	345	350	
230	Ala Val Met Ala Ala Gln Ala Pro Gly Val Ile Thr Gly Val Thr Pro			
231	355	360	365	
232	Ala Arg Pro Pro Ile Pro Val Thr Ile Pro Ser Val Gly Val Val Asn			
233	370	375	380	
234	Pro Ile Leu Ala Ser Pro Pro Thr Leu Gly Leu Leu Glu Pro Lys Lys			
235	385	390	395	400

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236 Glu Lys Glu Glu Glu Glu Leu Phe Pro Glu Ser Glu Arg Pro Glu Met  
 237 405 410 415  
 238 Leu Ser Glu Gln Glu His Met Ser Ile Ser Gly Ser Ser Ala Arg His  
 239 420 425 430  
 240 Met Val Met Gln Lys Leu Leu Arg Lys Gln Glu Ser Thr Val Met Val  
 241 435 440 445  
 242 Leu Arg Asn Met Val Asp Pro Lys Asp Ile Asp Asp Asp Leu Glu Gly  
 243 450 455 460  
 244 Glu Val Thr Glu Glu Cys Gly Lys Phe Gly Ala Val Asn Arg Val Ile  
 245 465 470 475 480  
 246 Ile Tyr Gln Glu Lys Gln Gly Glu Glu Asp Ala Glu Ile Ile Val  
 247 485 490 495  
 248 Lys Ile Phe Val Glu Phe Ser Ile Ala Ser Glu Thr His Lys Ala Ile  
 249 500 505 510  
 250 Gln Ala Leu Asn Gly Arg Trp Phe Ala Gly Arg Lys Val Val Ala Glu  
 251 515 520 525  
 252 Val Tyr Asp Gln Glu Arg Phe Asp Asn Ser Asp Leu Ser Ala  
 253 530 535 540

255 <210> SEQ ID NO: 3  
 256 <211> LENGTH: 18  
 257 <212> TYPE: DNA  
 258 <213> ORGANISM: Artificial Sequence  
 260 <220> FEATURE:  
 261 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA  
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 263 ggccccatca agagcatg  
 265 <210> SEQ ID NO: 4  
 266 <211> LENGTH: 19  
 267 <212> TYPE: DNA  
 268 <213> ORGANISM: Artificial Sequence  
 270 <220> FEATURE:  
 271 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA  
**W--> 272 <400> SEQUENCE: 4** 19  
 273 ggggctgggc cagggtcag  
 275 <210> SEQ ID NO: 5  
 276 <211> LENGTH: 18  
 277 <212> TYPE: DNA  
 278 <213> ORGANISM: Artificial Sequence  
 280 <220> FEATURE:  
 281 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA  
**W--> 282 <400> SEQUENCE: 5** 18  
 283 gcacctggag tcatcaca  
 285 <210> SEQ ID NO: 6  
 286 <211> LENGTH: 19  
 287 <212> TYPE: DNA  
 288 <213> ORGANISM: Artificial Sequence  
 290 <220> FEATURE:  
 291 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic DNA  
 293 <400> SEQUENCE: 6

VERIFICATION SUMMARY

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Input Set : A:\Q90951 Sequence Listing.txt  
Output Set: N:\CRF4\11012005\J554026.raw

L:4 M:283 W: Missing Blank Line separator, <120> field identifier  
L:5 M:283 W: Missing Blank Line separator, <130> field identifier  
L:6 M:270 C: Current Application Number differs, Replaced Current Application No  
L:6 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:8 M:283 W: Missing Blank Line separator, <160> field identifier  
L:262 M:283 W: Missing Blank Line separator, <400> field identifier  
L:272 M:283 W: Missing Blank Line separator, <400> field identifier  
L:282 M:283 W: Missing Blank Line separator, <400> field identifier